CLAIMS

What is claimed is:

1. A system for detecting and characterizing burst or continuous wave jamming interference in a communication channel adapted to receive a monitored signal, said system comprising:

a spectrum analyzer adapted to spectrally analyze an input signal;

a burst clamp coupled at its output to said spectrum analyzer, said burst clamp activated to clamp a received signal at a predetermined level when a predetermined threshold in said received signal is reached;

an automatic gain control (AGC) in a feedback loop coupled to the input of said burst clamp and coupled to the output of said burst clamp; and

a computer coupled to the output of said spectrum analyzer, adapted to characterize the type of interference upon activation of said burst clamp.

2. The system in Claim 1, wherein the time constant of said AGC is substantially greater than the time constant of jamming interference signals expected to be received by said communication channel.

3. The system in Claim 1, wherein said computer is further adapted to determine burst interference durations.

4. The system in Claim 1, wherein said computer is further adapted to determine burst interference repetition rates.

5. The system in Claim 1, wherein said computer is further adapted to determine burst interference duty cycles.

6. The system in Claim 1, wherein said burst clamp and AGC are adapted to, in response to said computer, rapidly restore said monitored signal after the passage of an interference burst.

7. A method for detecting and characterizing burst or continuous wave jamming interference in a communication channel adapted to receive a monitored signal, said method comprising the steps of:

via a spectrum analyzer, spectrally analyzing an input signal;

via a burst clamp coupled at its output to said spectrum analyzer, activating said burst clamp activated to clamp a received signal at a predetermined level when a predetermined threshold in said received signal is reached;

via an automatic gain control (AGC) in a feedback loop coupled to the input of said burst clamp and coupled to the output of said burst clamp, automatically substantially stabilizing the gain of a received signal to a predetermined level; and

via a computer coupled to the output of said spectrum analyzer, characterizing the type of interference upon activation of said burst clamp.

8. The method in Claim 7, wherein the time constant of said AGC is substantially greater than the time constant of jamming interference signals expected to be received by said communication channel.

9. The method in Claim 7, further comprising the step of, via said computer, determining burst interference durations.

10. The method in Claim 7, further comprising the step of, via said computer, determining burst interference repetition rates.

11. The method in Claim 7, further comprising the step of, via said computer, determining burst interference duty cycles.

12. The method in Claim 7, further comprising the step of, via said burst clamp and AGC in response to said computer, rapidly restoring said monitored signal after the passage of an interference burst.